

CIVIL QUALITY CONSULTANTS & ENGINEERS

(Buildings Geo-Tech & Highway Materials Testing Laboratory)
An ISO 9001: 2015 Certified Company
NABL Accredited As Per ISO/IEC : 17025:2005 Laboratory



QCE/BBMP/NAIK/W.No.37/2020.21

DETERMINATION OF FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

10.09.2020

Client	Executive Engineer, RR Nagar Division, BBMP, Bangalore.
Agency	Sri. N M Krishnamurthy, Contractor, Bangalore.
Name of Work	Comprehensive development of Roads, drains and Footpath in Yeshwanthpura ward No.37 under PACKAGE-2019-20 RRN-DIV-(11), BBMP, Bangalore.
Technical Reference	IS 2386(Part 1) 1963 (RA 2011)
Type of Mix	Wet Mix Macadam
Date of Testing	10.09.2020

Result : Flakiness Index = 11.68%

Elongation Index = 13.62%

Result : Combined Flakiness & Elongation index 25.30%

Comments:

Maximum allowable Flakiness & Elongation Index for Wet Mix Macadam is 30%

Note:

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Asst. Executive Engineer
Yeshwanthpura Sub-Division
Bruhat Bangalore Mahanagara Patike

For CIVIL QUALITY CONSULTANTS & ENGINEERS

Authorised Signatory

Office & Laboratory : # 133, Bhuvaneshwarinagar, Dodda Basti Main Road, Bangalore - 560 056.
e-mail: civilqualityconsultants@gmail.com Ph: 080-23240644 / Mob: 8553518550

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Technical Reference	IS 2386(Part 1) 1963 (RA 2011)
Type of Mix	Wet Mix Macadam
Date of Testing	10.09.2020

Result : Flakiness Index = 12.36%

Elongation Index = 14.52%

Result : Combined Flakiness & Elongation index 26.88%

Comments:

Maximum allowable Flakiness & Elongation Index for Wet Mix Macadam is 30%

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DETERMINATION OF FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

10.09.2020

Client	Executive Engineer, RR Nagar Division, BBMP, Bangalore.
Agency	Sri. N M Krishnamurthy, Contractor, Bangalore.
Name of Work	Comprehensive development of Roads, drains and Footpath in Yeshwanthpura ward No.37 under PACKAGE-2019-20 RRN-DIV-(11), BBMP, Bangalore.
Technical Reference	IS 2386(Part 1) 1963 (RA 2011)
Type of Mix	Wet Mix Macadam
Date of Testing	10.09.2020

Result : Flakiness Index = 11.98%

Elongation Index = 13.36%

Result : Combined Flakiness & Elongation index 25.34%

Comments:

Maximum allowable Flakiness & Elongation Index for Wet Mix Macadam is 30%

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EQCE/BBMP/NMK/W.No.37/2020-21

Aggregate Impact Value IS: 2386 Part IV

Date: 10.9.2020

Client Agency	Executive Engineer, RR Nagar Division, BBMP, Bangalore.
Name of the Work	Sri. N M Krishnamurthy, Contractor, Bangalore. Comprehensive development of Roads, drains and Footpath in Yeshwanthpura ward No.37 under PACKAGE-2019-20 RRN-DIV-(11), BBMP, Bangalore.
Date of Testing	10.9.2020
Type of Mix	Wet Mix macadam

Sl No.	Details	Trial No.			Average
		1	2	3	
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g				
2	Weight of aggregate passing 2.36 mm sieve after the test = W_2 g	370	372	374	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	83	85	87	
4	Aggregate Impact value = percent fines $100 * (W_2/W_1) \%$	287	287	287	
		22.43	22.85	23.26	22.85

Comments:

→ Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

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BBMP/NMK/W.No.37/2020-21

Date: 10.9.2020

Aggregate Impact Value IS: 2386 Part IV

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Sri. N M Krishnamurthy, Contractor, Bangalore.
Name of the Work: Comprehensive development of Roads, drains and Footpath in Yeshwanthpura ward No.37 under PACKAGE-2019-20 RRN-DIV (11), BBMP, Bangalore.
Date of Testing: 10.9.2020
Type of Mix: Wet Mix macadam

Sl No.	Details	Trial No.			Average
		1	2	3	
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g				
2	Weight of aggregate passing 2.36 mm sieve after the test = W_2 g	378	380	384	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	83	85	87	
4	Aggregate Impact value = percent fines $100 * (W_2/W_1)\%$	295	295	297	
		21.96	22.37	22.66	22.33

Comments:

→ Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

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Aggregate Impact Value IS: 2386 Part IV

Date: 10.9.2020

Client Agency	Executive Engineer, RR Nagar Division, BBMP, Bangalore.
Name of the Work	Sri. N M Krishnamurthy, Contractor, Bangalore. Comprehensive development of Roads, drains and Footpath in Yeshwanthpura ward No.37 under PACKAGE-2019-20 RRN DIV (11), BBMP, Bangalore.
Date of Testing	10.9.2020
Type of Mix	Wet Mix macadam

Sl No.	Details	Trial No.			Average
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	1	2	3	
2	Weight of aggregate passing 2.36 mm sieve after the test = W_2 g	380	382	384	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	85	87	89	
4	Aggregate Impact value = percent fines $100 * (W_2/W_1)\%$	295	295	295	
		22.37	22.77	23.18	22.77

Comments:

→ Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

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Aggregate Impact Value IS: 2386 Part IV

Date: 10.9.2020

Client Agency Name of the Work
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Comprehensive development of Roads, drains and Footpath in Yeshwanthpura ward No.37 under PACKAGE-2019-20 RRN-DIV (11), BBMP, Bangalore.

Date of Testing 10.9.2020
Type of Mix Wet Mix macadam

Sl No.	Details	Trial No.			Average
		1	2	3	
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g				
2	Weight of aggregate passing 2.36 mm sieve after the test = W_2 g	378	380	382	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	85	87	89	
4	Aggregate Impact value = percent fines $100 * (W_2/W_1)\%$	293	293	293	
		22.49	22.89	23.30	22.89

Comments:

→ Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

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ATTERBERG LIMITS TEST FOR WMM MORTH TABLE-400-11

Date :12.09.2020

Client : Executive Engineer, RR Nagar Division, BBMP, Bangalore.
Agency : Sri. N M Krishnamurthy, Contractor, Bangalore.
Name of Work : Comprehensive development of Roads, drains and Footpath in Yeshwanthpura ward No.37 under PACKAGE-2019-20 RRN-DIV-(11), BBMP, Bangalore.
Date of Testing : 10.9.2020 to 12.09.2020
Material Type : Wet Mix Macadam

As per MORTH Table 400-13

Sl. No.	Particulars	Test Results	Standards as per Specifications
1	Liquid Limit	22.00	-
2	Plasticity Index, %	Non Plastic	6.0% Maximum.

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CQCE/BBMP/NMK/W.No.37/2020-21

ATTERBERG LIMITS TEST FOR WMM MORTH TABLE-400-II

Date : 12.09.2020

Client
Agency
Name of Work

: Executive Engineer, RR Nagar Division, BBMP, Bangalore.
: Sri. N M Krishnamurthy, Contractor, Bangalore.
: Comprehensive development of Roads, drains and Footpath in Yeshwanthpura ward No.37 under PACKAGE 2019-20 RRN-DIV-(11), BBMP, Bangalore.

Date of Testing : 10.9.2020 to 12.09.2020

Material Type : Wet Mix Macadam

As per MORTH Table 400-13

Sl. No.	Particulars	Test Results	Standards as per Specifications
1	Liquid Limit	24.00	-
2	Plasticity Index, %	Non Plastic	6.0% Maximum.

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ATTERBERG LIMITS TEST FOR WMM MORTH TABLE-400-11

Date :12.09.2020

Client : Executive Engineer, RR Nagar Division, BBMP, Bangalore.
Agency : Sri. N M Krishnamurthy, Contractor, Bangalore.
Name of Work : Comprehensive development of Roads, drains and Footpath in Yeshwanthpura ward No.37 under PACKAGE-2019-20 RRN-DIV-(11), BBMP, Bangalore.
Date of Testing : 10.9.2020 to 12.09.2020
Material Type : Wet Mix Macadam

As per MORTH Table 400-13

Sl. No.	Particulars	Test Results	Standards as per Specifications
1	Liquid Limit	22.00	-
2	Plasticity Index, %	Non Plastic	6.0% Maximum.

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